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# **Vidifox<sup>®</sup> Document Camera**

## **DV485**

# **USER GUIDE**



Please read this manual carefully before operating the camera and keep it for your reference.

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## **PLEASE READ CAREFULLY BEFORE USE**

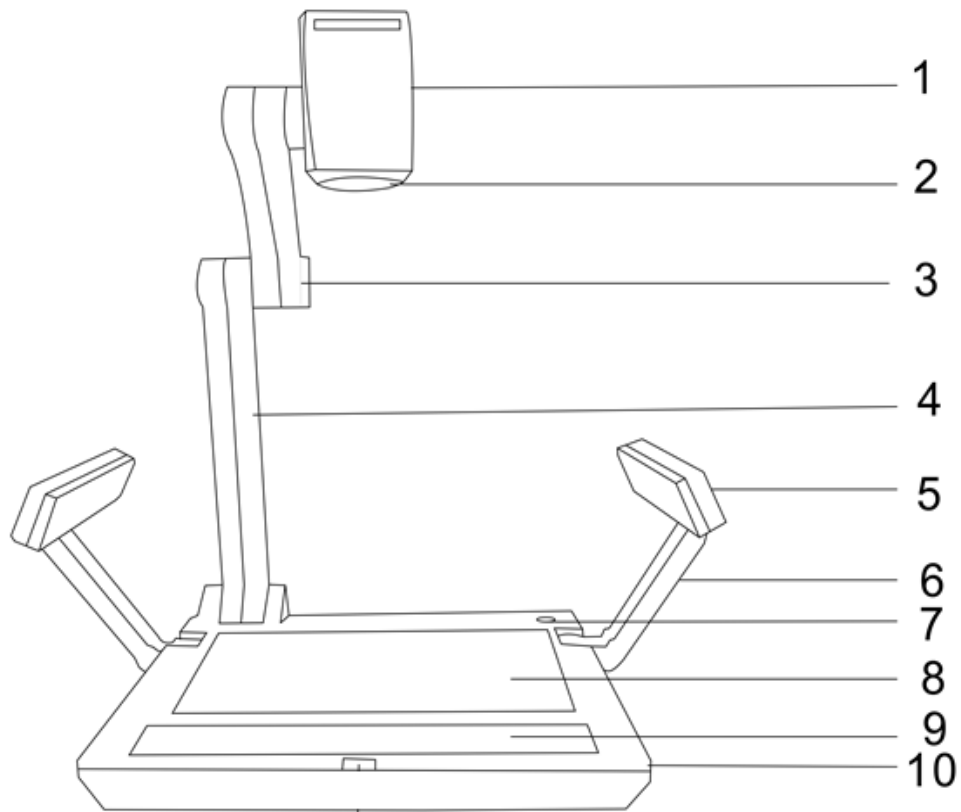
- Please be aware of the required power supply environment is 100-240V, 50/60Hz, 2A Max.
- Do not place the equipment under sunlight, near heaters, near water, or on any unstable surface.
- Keep the equipment away from acid or alkali gas.
- The recommended operating environment is:
  - Temperature: 0 °C--45 °C(32 °F-113 °F)
  - Humidity: less than 75%
- Always unplug BEFORE cleaning the equipment. Do not use volatile solvent when cleaning.
- Unplug the power cable if camera is not in use for a long period.
- Consult the dealer for professional assistance when there is any problem with the equipment.

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# 1. PARTS AND FUNCTIONS



(1) camera head

(2) camera lens

(3) upper mechanical arm

(4) main mechanical arm

(5) side lamp

(6) lighting arm

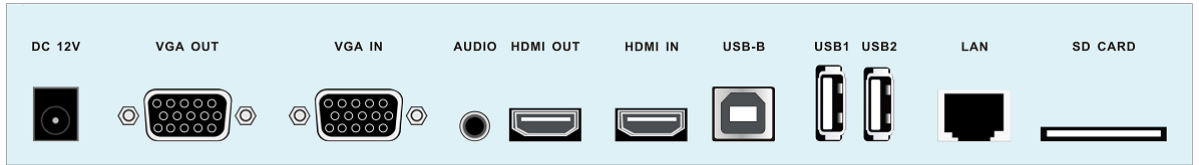
(7) power switch

(8) base light

(9) control panel

(10) base unit

# 2.INPUTS AND OUTPUTS



1.**DC 12V:** Power input

2.**VGA OUT:** VGA Output

3.**VGA IN:** VGA Input

4.**AUDIO:** Audio Output

5.**HDMI OUT:** HDMI output

6.**HDMI IN:** HDMI input

7.**USB-B:** USB slave, for connecting with PC

Firmware upgrading.

8.**USB1/USB2:** USB host, for connecting with USB mouse or USB memory stick.

9.**LAN:** Network connection

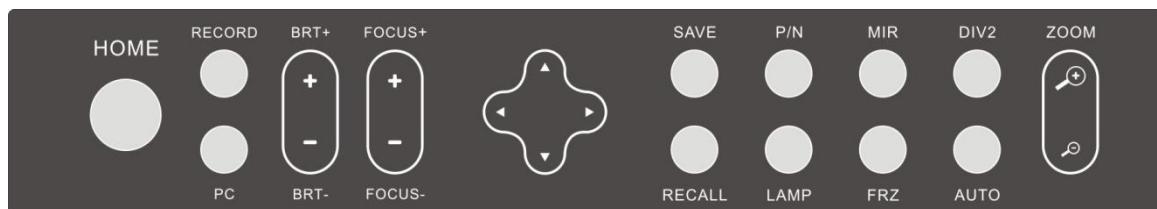
10.**SD CARD:** SD card slot.

*Note 1: VGA signal and HDMI signal can not be outputted at the same time, please switch needed output signal type.*

*Note 2: HDMI(VGA) OUT only can output the camera signal and corresponding HDMI(VGA) IN signal.*

*Note 3: Visualizer is based on HDMI 1.3, display device based on HDMI 1.3 and above is recommended. There may cause compatibility problems when working with display device below HDMI 1.3.*



# 3.Control Panel




- 1.**HOME:** a. Switch back to the camera signal.  
b. Display the selected image and video clips in image recall mode.
- 2.**RECORD:** Start/stop video recording, the video clip recorded will be automatically saved to a USB memory stick, SD card, or built-in memory. DV485 can detect an external storage media and put the last detected storage as a priority storage site. If there is no external storage detected, all video clips will be saved in the built-in memory.
- 3.**PC:** Switch to the PC signal.
- 4.**BRT+, BRT—:** Control the brightness of displaying image.
- 5.**FOCUS+, FOCUS—:** Adjust focus manually, focus far and focus near.
- 6.**ARROWS:** Select images and video clips in image recall mode.
- 7.**SAVE:** Capture and save the images to USB memory stick, SD card, or built-in memory.  
DV485 can detect an external storage media and put the last detected storage as a priority storage site. If there is no external storage detected, all video clips will be saved in the built-in memory.
- 8.**RECALL:** Enable image recall mode, displaying the saved images and video clips.
- 9.**P/N:** Switch the image display between positive and negative.
- 10.**LAMP:** Toggle arm light, back light and no light.
- 11.**MIR:** Flip the current displaying image.
- 12.**FRZ:** Freeze the displaying image .
- 13.**DIV2:** Split the displaying image.
- 14.**AUTO:** Adjust white balance and focus automatically.
- 15.**ZOOM+, ZOOM—:** Zoom in and zoom out the current displaying image.


## 4.ANNOTATION



The annotation function will be activated by connecting a USB mouse to the document camera. We will see the following icons by clicking the left button on a mouse:


1.  : Clicking this icon, the whiteboard function is activated. The image captured is now subjected to annotation. To switch back to the real-time camera mode, click icon .

2.  : Clicking this icon, the current image will be saved and annotation function activated. In annotation mode, click the following icons to choose the color of annotating pen.

 Yellow,  Red,  Blue.


3.  : In annotation mode, click this icon to delete annotation, there are two types of deletion:


 : area clear  : all clear.


4.  : In annotation mode, click this icon to choose the thickness of the pen, there are 3 options:


 Thin,  Medium,  Thick.



5.  : Click to capture and save the image.



6.  : Click to start recording, click again to stop recording and save the video clip.



7.  : Click to recall the saved images or video clips, meanwhile the annotation function is activated, click again back to camera image. Press and hold left key on mouse for at least three seconds to delete this image.

8.  : Click to rotate the image(90° ,180° ,270° )

9.  : Click to go to control menu.

  : Image zoom in and zoom out control

  : Image brightness control

  : Adjust focus manually

 : Perform white balance and focus automatically



: Toggle arm light, back light and no light.



: Output the mirror image



: Switch the image mode between positive and negative.



: Image freeze



: Image split.



: Title freeze.

In Title freeze mode, there are 4 buttons used to adjust the title function:



: Enlarge the frozen title area



: Reduce the frozen title area



: Adjust the frozen title position.



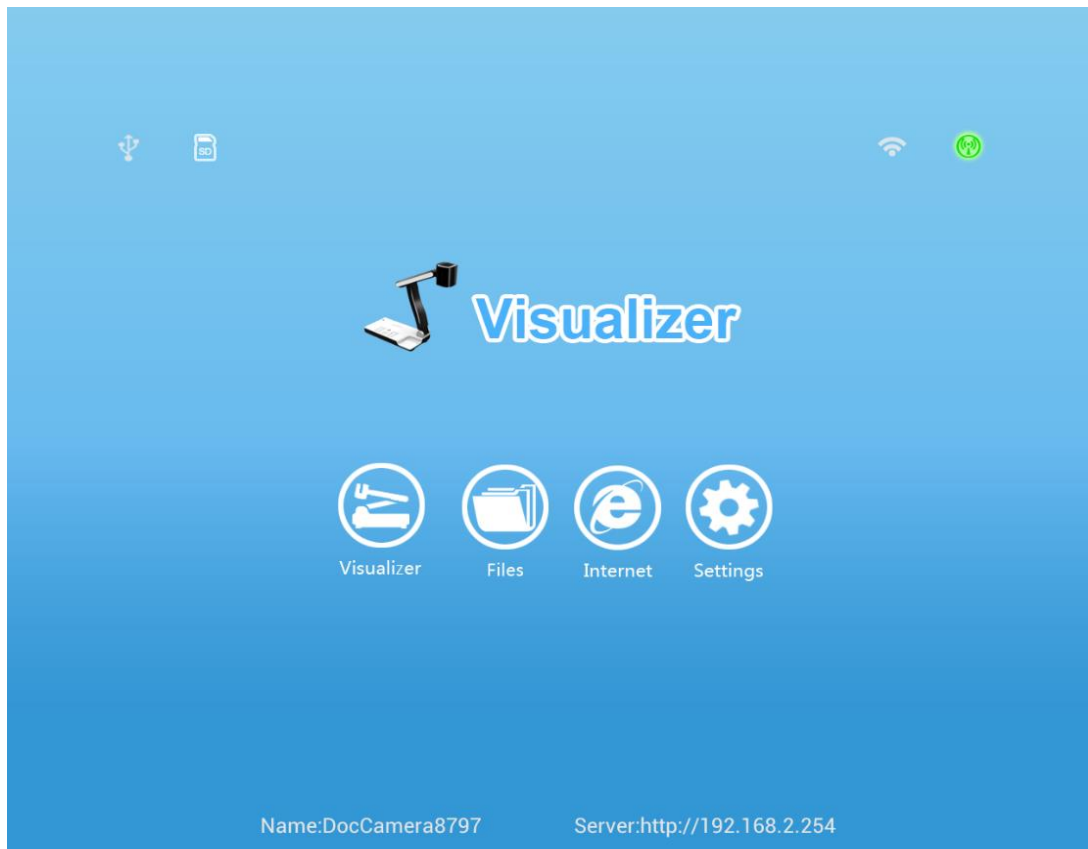
: Picture in picture



: Click to go to start page of the embedded multimedia system.



# 5.MULTIMEDIA SYSTEM



Under the main system interface user can find tips column and function column.

## 1. Tips column



indicates no USB flash drive plugs in



indicates USB flash drive plugs in



indicates no SD card plugs in



indicates SD card plugs in



indicates document camera's wireless function has been disabled



indicates document camera's wireless function has been enabled








## 2. Function column



**Visualizer** : Go to real-time camera image.



**Files** : Open the files saved in SD card or memory stick that connected to the document camera(see the screen shot below)

	Type	Name	Size	Time
 SD卡		hill.txt	1.2M	2012/11/12
		Logo. txt	5.2M	2012/11/12
		LOST.DIR	5.2M	2012/11/12
		Music		2012/11/23
 USB		WaninExplorer	5.2M	2012/10/08



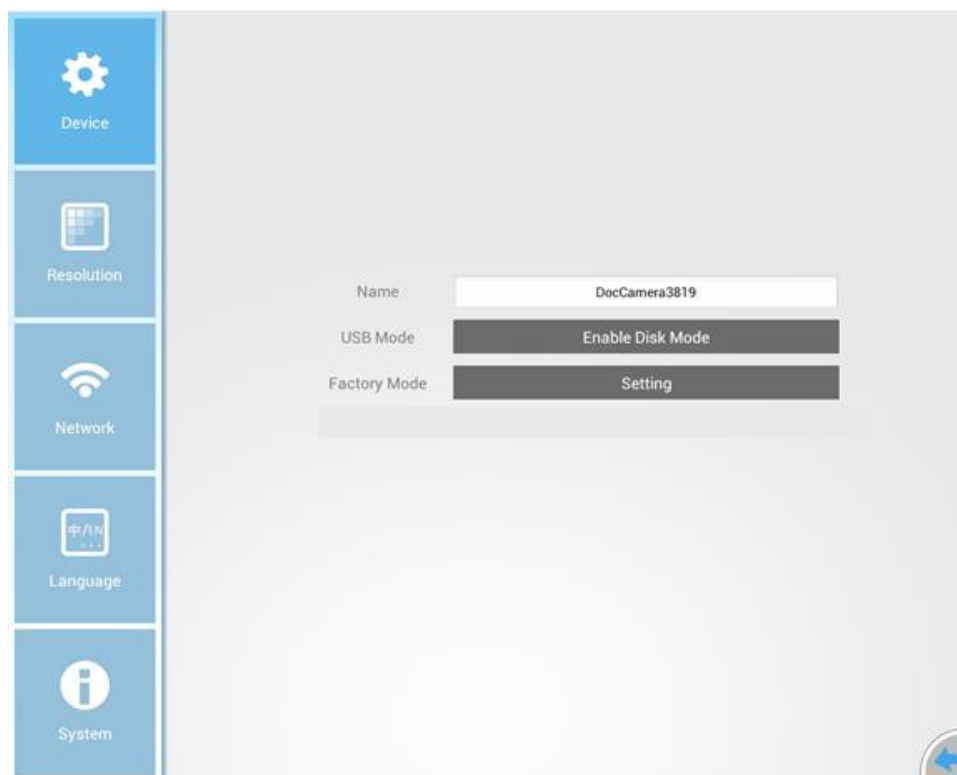
**Internet** : Browse the webpage



**Settings** : System settings

## Settings

### 1. Device

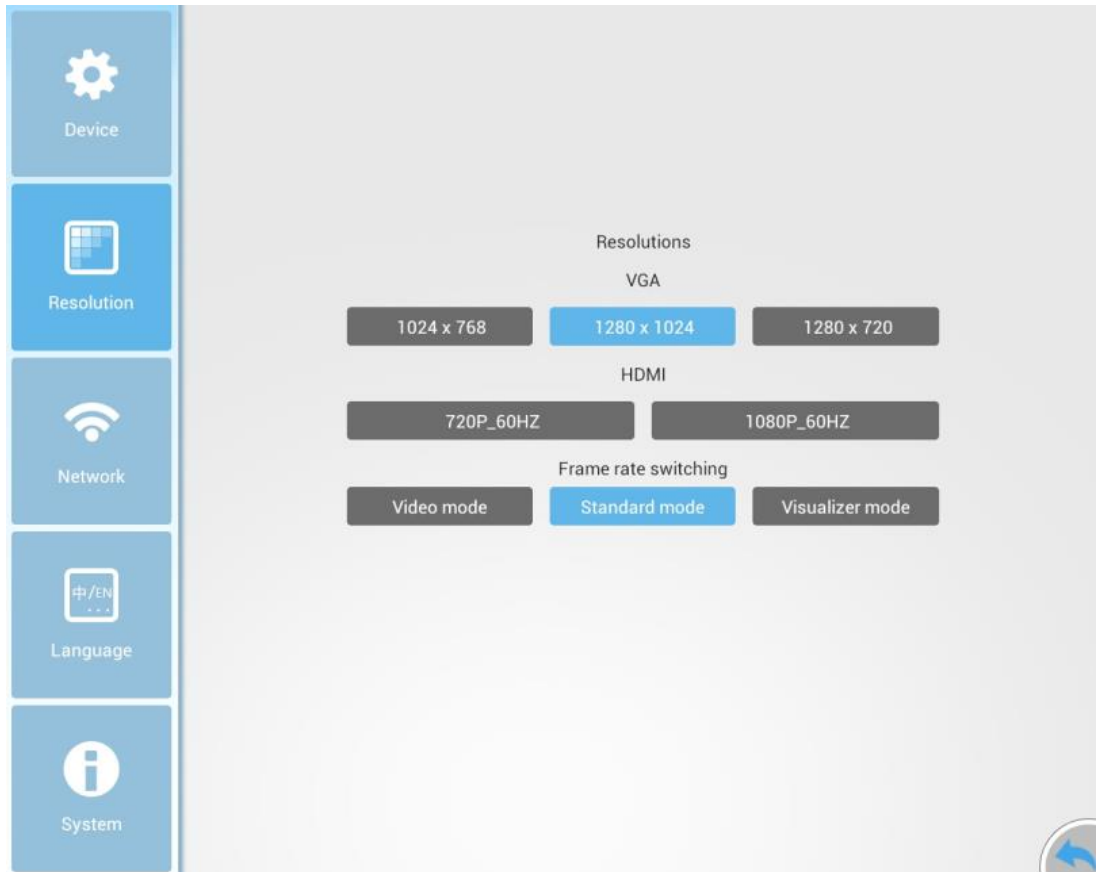


Name: Define the SSID of the document camera.

USB Mode: Enable the images saved in document camera to be downloaded to PC.

Factory Mode: Enter to adjust the parameters of document camera. Please contact the dealer for professional assistance.

## 2. Resolution



Select the suitable output resolution of the document camera.

Note: Visualizer will be restarted after switches resolution.

Frame rate switching:

Video mode: Frame rate: 30fps

Stand mode: Frame rate: 22fps

Visualizer mode: Frame rate: 12fps

### 3. Network

DV485 supports both wired and WIFI Network. You may choose either one that applies.

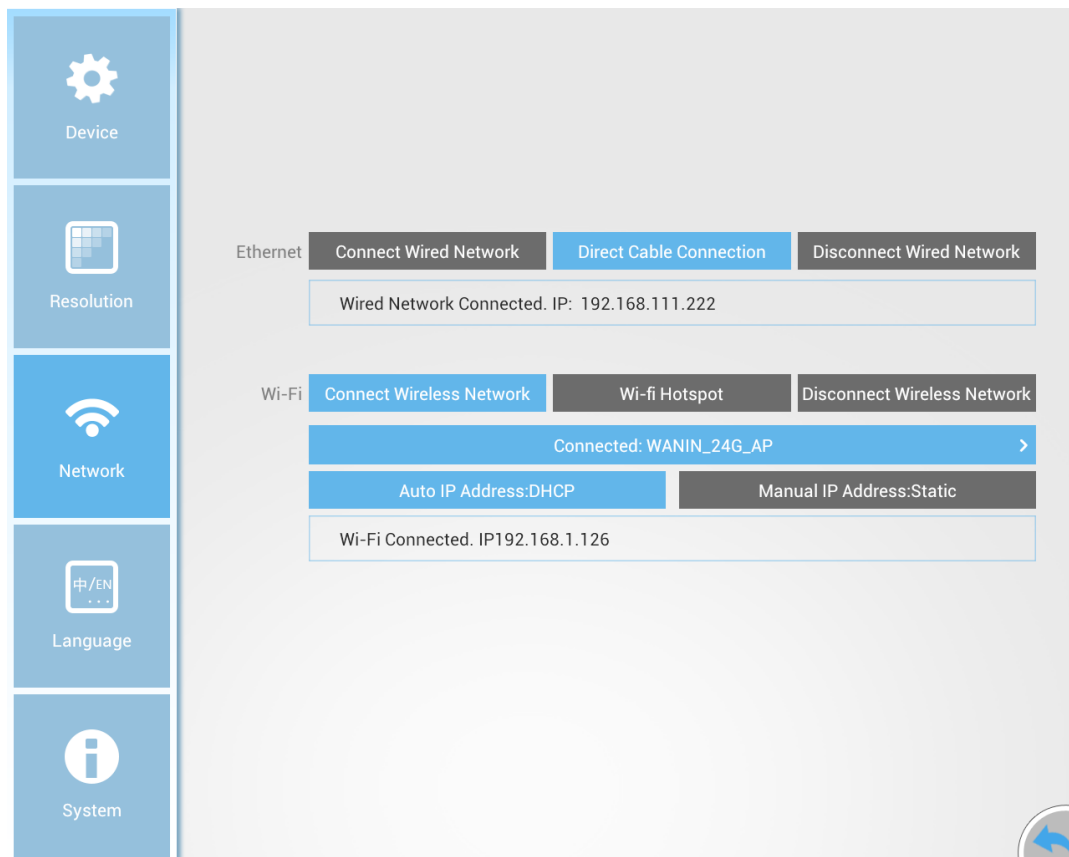


**3.1 Wired Networking:** Use networking cable to connect DV485 to an existing network through LAN port on a router. The default choice for setting up a network is “IP address:DHCP”. If you need to assign an IP address to a DV485 manually, please choose “IP address:Static”, and type in the IP Address, Default Gateway and DNS in the pop-up window showing below:

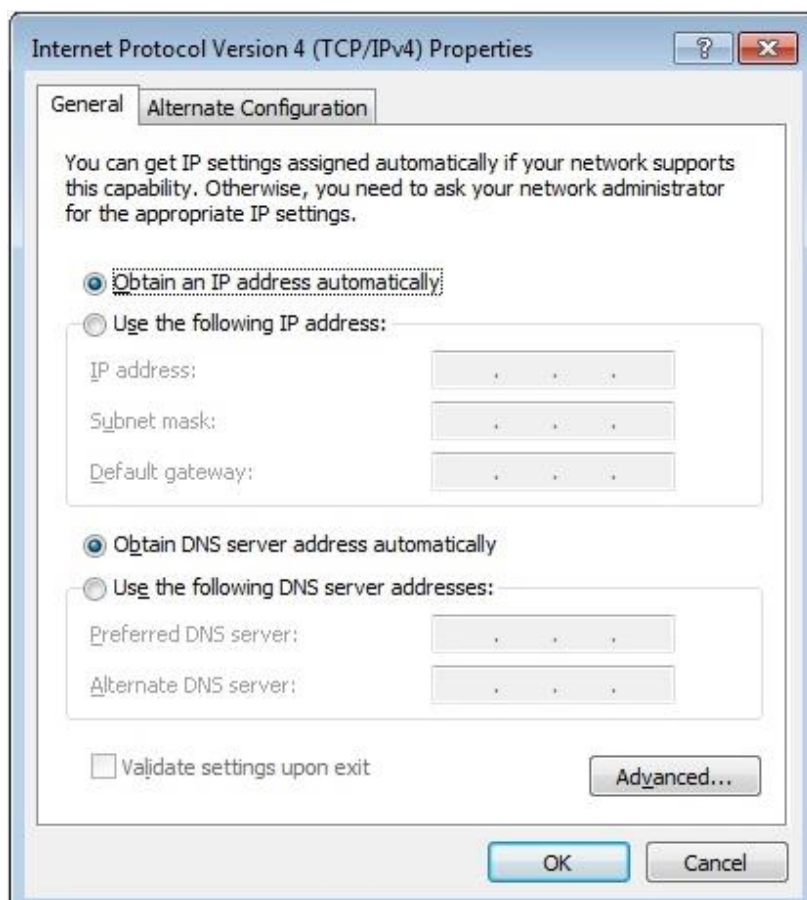
This is a pop-up window for configuring static IP settings. It has a title 'IP address: Static'. There are three input fields: 'IP Address', 'Default Gateway', and 'DNS'. The 'IP Address' field is currently empty and has an orange border. Below the input fields are two buttons: 'OK' and 'Back'.

### 3.2 Connect with other instruments

Other instruments such as a computer can be directly connect to DV485 through LAN port to form a local network.



Check the network setting of the connected PC below:



3.3 WI-FI networking: Your DV485 can join an existing WIFI network, or offer WIFI access as a hotspot.

Connecting to an existing network wirelessly:

You need to select the name of existing network that you want DV485 to join, and type in the correct password (if applicable).

Wi-Fi

Connect Wireless Network

Wi-fi Hotspot

Disconnect Wireless Network

Select nearby WLAN


Auto IP Address:DHCP

Manual IP Address:Static


Wi-fi Not Connected

Select nearby WLAN


☒ WANIN\_24G\_AP




MERCURY\_3ECCDA




wanin\_FZB



WANIN\_24G\_CPB



waninhys



Back

Input security keys

.....|

OK

Back



Please select “Auto IP address” if the network support DHCP.

If you need to assign an IP address to a DV485 manually, please choose “IP address:Static”. And type-in the IP Address, Default Gateway and DNS in the pop-up window showing below

3.4 WIFI access as a hotspot: Your DV506S can serve as a wireless access point for other instruments such as computers. Please set the WIFI network at the computer end as “IP address:DHCP”. Your DV485 will setup the network configuration automatically for you.

*NOTES:*

*DV485 can join a current network through wired or wireless network, but NOT both at the same time.*

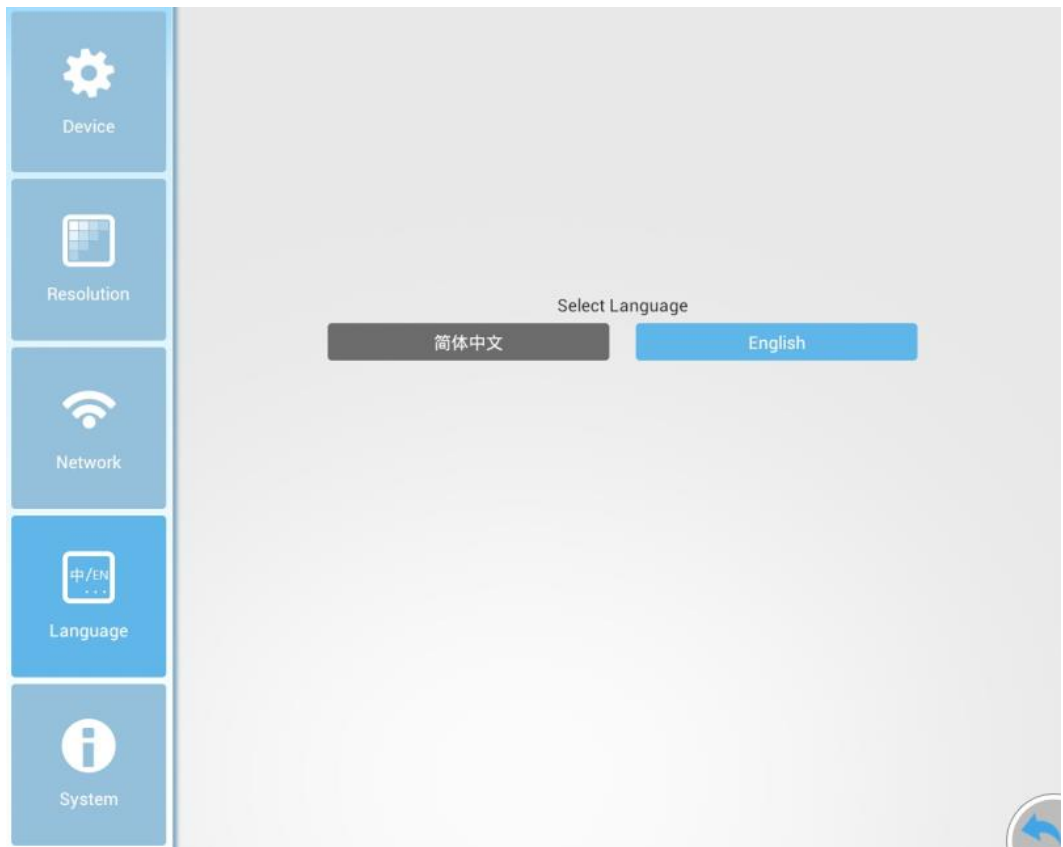
*When directly connected to internet through networking cable, a DV485 can be configured as a “hotspot” for other instruments such as computer and smart pads.*

*NOTES:*

*Either cable or WIFI connection can be set for a DV485 to join an existing network, but NEVER at the same time.*

*When a DV485 is served as a hotspot to access internet, please keep your usage minimum, so that its primary functions as a document camera would not be compromised.*

#### 4. Language



Switch the system language between simplified Chinese and English.

## 5. System



**Restart Device:** Select this option to restart the Visualizer System



**Restore Factory Settings:** Use this option to reset all Visualizer System settings, including Screen Resolution, Network Settings to Factory's Default Settings.

**Firmware Upgrade:** Choose this option to update Visualizer with the latest Visualizer Driver and Software Application version.

(Caution! Improper or failed firmware upgrades might cause damages to Visualizer and or stop Visualizer working. Users are suggested to consult with Factory or Authorized Dealer's Customer Services for Firmware Upgrade help.)

**Application Check:** Online upgrading available by single click (please make sure it has connected to internet).

## 6. Wireless display

DV485 allows you to use a third party APP to share the contents on the devices in the same network on a large-screen displayer sequentially. The third party APP of your choice generally would support DLNA/Airplay or other main stream proposals. On their interface you may choose clicking the corresponding logo such as  or  to start sharing.

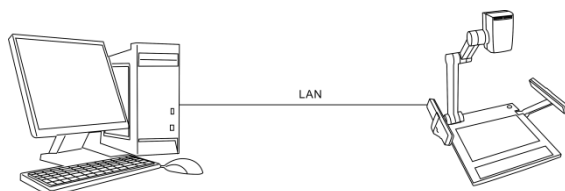


# 6.SOFTWARE

## Connection

### Option 1

Connect the document camera and PC with a network cable,



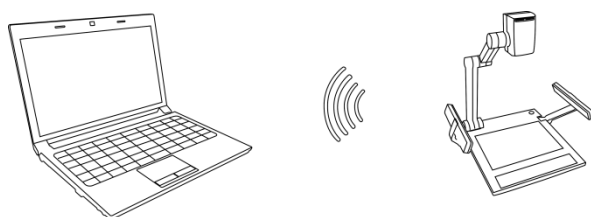
Select “Wired network” in network setting of the document camera.

Select “IP automated acquisition” in network setting of the PC.

### Option 2

Select “Device hotspot” in network setting of the document camera.

Connect the PC to the Wi-Fi signal of the document camera.

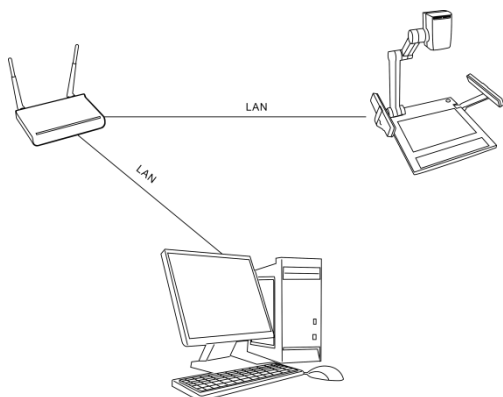


### Option 3

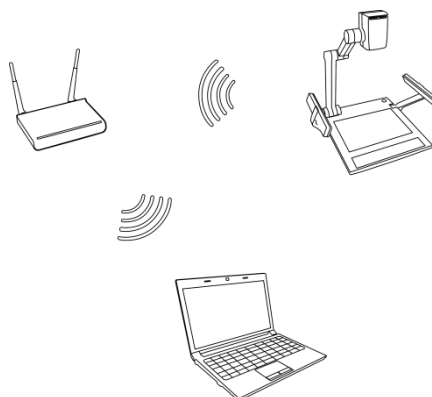
Select “Wired network” or” Wireless network” in networking setting of the document camera.

Connect the document camera to a router with LAN or Wi-Fi.

Connect the PC to the same router with LAN or Wi-Fi.



Wired network




Wireless network

## Software Installation

There are 3 types of software in CD for different operation systems, here we take the software of Windows system for example.

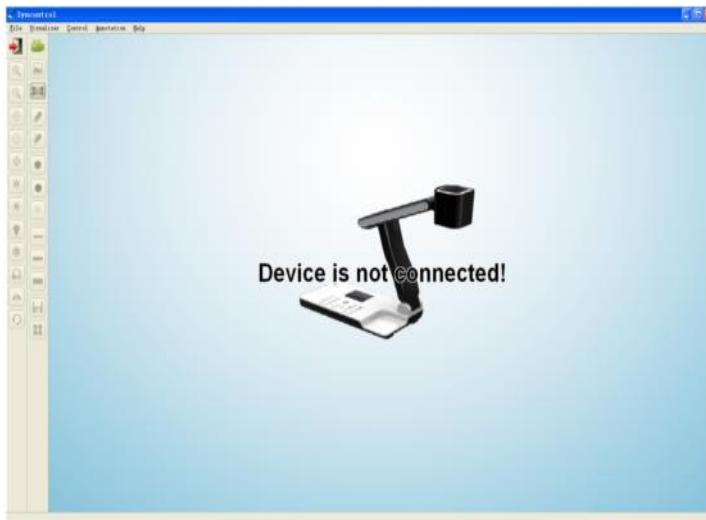
Double click  **SynControl Setup.exe** in CD to install the software to your PC, there will


be a generated icon on the desktop .

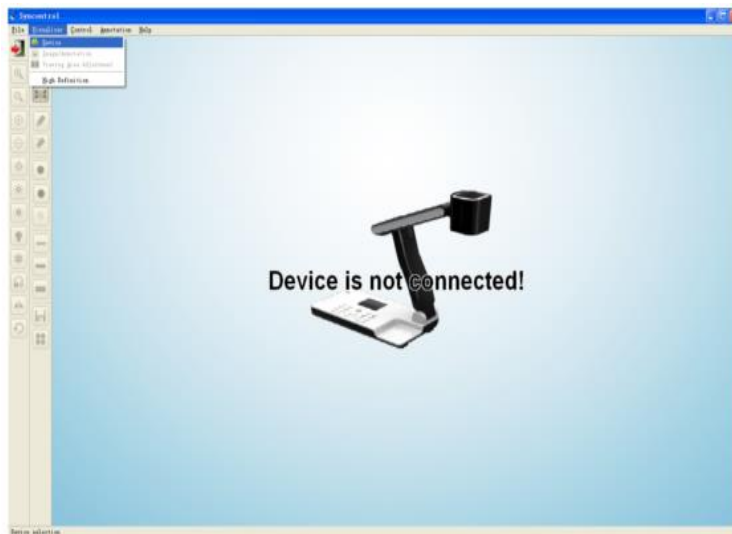
## Software Start

**Note: Please go back to Visualizer mode before start the software.**

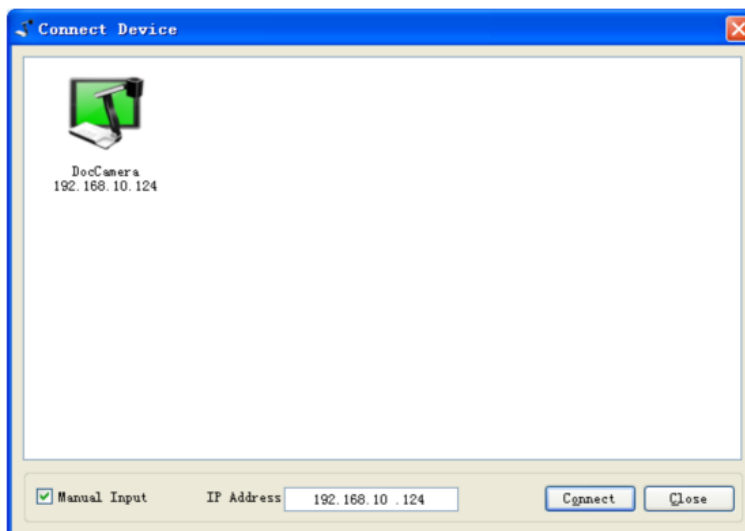
Double click the icon  on the desktop.




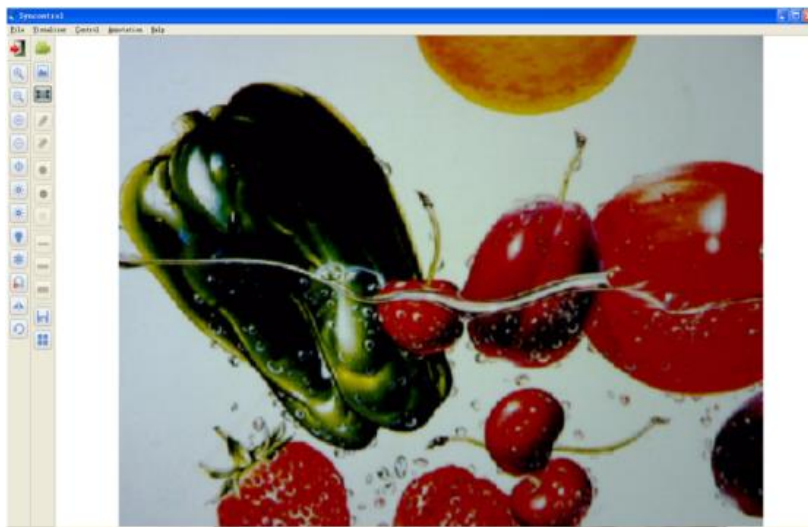
Left click  on the left tool bar, or choose the “select” of “visualizer” in the menu bar.



There will be a window lists all connected devices.



Double click the DocCamera icon  to activate it, then the image from this camera will be displayed.



We also can choose to connect a device manually.

1) Tick the ☒ Manual Input

2) Input the IP address of the device need to be selected. IP Address

3) Click  to activate.

Please refer to the help for detailed information.




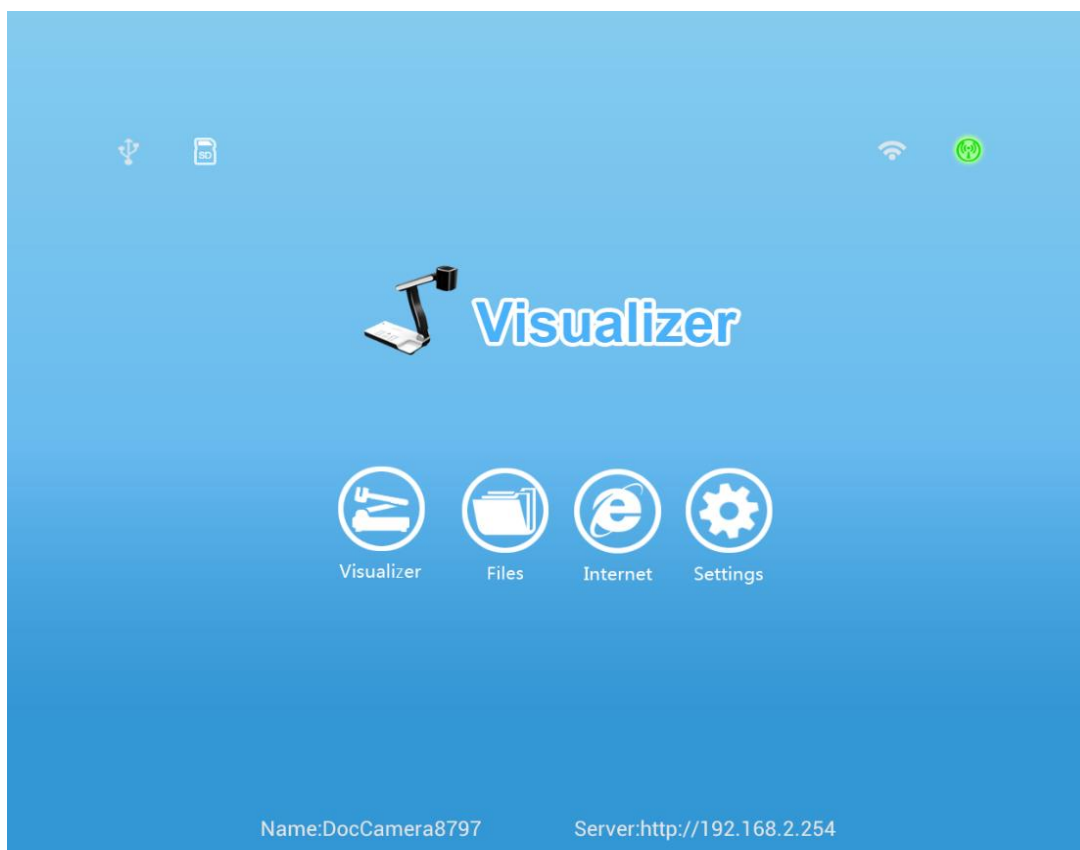


## NOTICE:

### Check Network Setup

For your computer to recognize DV 485, it needs to be connected to the same network. If your computer did not recognize DV 485 after it is properly connected, you may check the connection by the following steps:

- 1) Connecting the document camera and to a displayer (such as a LED, projector, et al) via VGA or HDMI cable.
- 2) Turn on the power to show the real-time image captured by the device on your displayer.
- 3) Connect a USB mouse to one of the USB slots at the back panel of the device.
- 4) Clicking the left button on a mouse to bring up the annotation interface.
- 5) Find and click the  icon on the low-right corner to bring up the following interface:



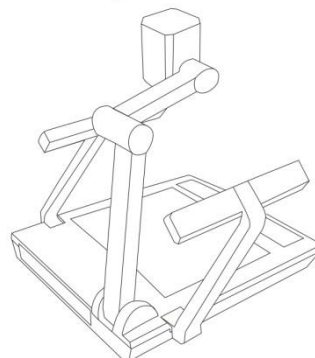
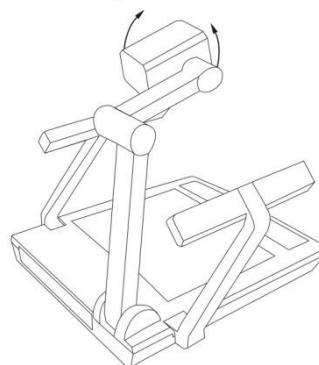
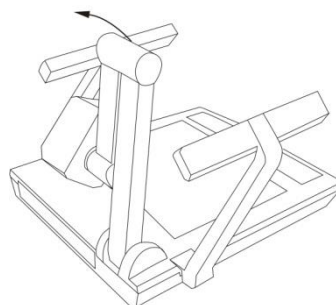
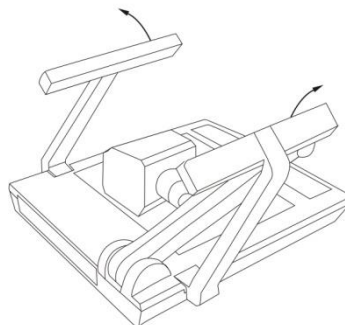
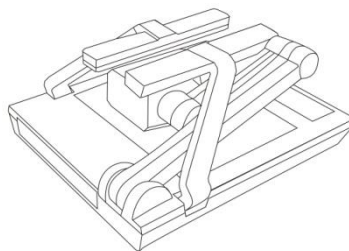
- 6) Click on “Settings”, then “Network” in next screen, as demonstrated in previous section “5. MULTIMEDIA SYSTEM “(pg. 10), to choose network definitions according to how your computer is connected to DV 485.

## 7.SPECIFICATIONS

<b>Model No.</b>	<b>DV485</b>
<b>Sensor</b>	1/3" CMOS
<b>Zoom</b>	9x optical, 20x digital
<b>Frame rate</b>	12/22/30
<b>Shooting area</b>	Max: 13.5"x10.6", Min: 0.1"x0.1"
<b>Focus</b>	Auto/manual
<b>Native output signal</b>	SXGA(1280x1024@60Hz)
<b>Converted output signal</b>	XGA,720P, 1080P
<b>Resolution (Horizontal)</b>	≥ 750 TV lines
<b>White balance</b>	Auto/manual
<b>Brightness adjustment</b>	Yes
<b>image capture</b>	Yes, on-board 400 images
<b>Video recording</b>	Yes
<b>Image mirror</b>	Yes
<b>Image rotation</b>	90/180/270
<b>Image split</b>	Yes
<b>Picture in picture</b>	Yes
<b>Positive/negative conversion</b>	Yes
<b>Image freeze</b>	Yes
<b>OSD</b>	Chinese/English
<b>Inputs</b>	VGA×1,HDMI×1
<b>Outputs</b>	HDMI×1,VGA×1,Audio×1
<b>USB2.0</b>	Host×2, Slave×1
<b>USB driver and software</b>	Windows XP /7 or above, Mac
<b>LAN</b>	x1
<b>SD card slot</b>	x1
<b>Light source</b>	Arm light×2, A4 size lightbox(LED)
<b>Dimensions</b>	Folded: 15.9"x16.7"x6.1" Setup: 18.7"x16.7"x22.3"
<b>Power supply</b>	12V DC power adapter
<b>Weight(net)</b>	4.5Kg

## 8.SETTING UP

1. Remove all the packing materials. Unfold the light arms to the end position.
2. Raise the camera arm completely.
3. Rotate the camera head until the lens face the center of the base unit.
4. Connect the VGA OUTPUT of the document camera to the VGA(RGB) INPUT of the display (monitor, television or projector) with the provided VGA cable.
5. Connect the HDMI OUTPUT of the document camera to the HDMI INPUT of the display (monitor, television or projector) with the provided HDMI cable.
6. Get the document camera connected with the power supply with the provided power adaptor and cord.



# 9. OPERATION PROCEDURES

## 1. General:

- 1). Turn on the power switch.
- 2). Place the target object on the base unit surface.
- 3). Adjust the image size according to the object size by pressing the **ZOOM+**, **ZOOM—** buttons on the control panel.
- 4). Press the **AF** button for automatic focus and white balance.
- 5). Press Save/Record to capture and save the image/video clip to memory.
- 6). **FRZ** button can be used to lock the image while changing displaying materials.
- 7). **DIV2** button can be used to compare the camera live image with a saved image in memory side by side.

## 2. Display the PC signal:

Connect the VGA IN of the document camera to the PC OUTPUT with the provided VGA cable, then press **PC** to display the PC signal.

## 3. Showing the 3D objects:

Use the **FOCUS+**, **FOCUS—** buttons on the front panel to adjust the focus on any part of the 3D object.

## 4. Showing the transparent material such as an overhead transparent sheet:

Press the **LAMP** button to turn on the built-in base light, then press **P/N**, switch to negative mode.

## 5. By-pass function

When turn off the power switch, the PC signal can pass through the document camera via VGA in and VGA out.

Note: Please disconnect the power cable if document camera will not be used for a long period.

# 10.TROUBLE-SHOOTING

Symptoms	Possible causes/counter-measures
No image	<ol style="list-style-type: none"> <li>1. Check the power cord and adaptor.</li> <li>2. Check the VGA/HDMI cables that connect the document camera and display device</li> <li>3. Check the power switch.</li> </ol>
Can not get PC signal	<ol style="list-style-type: none"> <li>1. Check the VGA/HDMI cables that connect the document camera and PC.</li> <li>2. Press PC to switch to PC signal.</li> </ol>
Image bending	<ol style="list-style-type: none"> <li>1. Camera is not in right position, adjust the camera.</li> <li>2. Press the “Auto adjust” of the LCD.</li> </ol>
Out of focus or blurring image	<ol style="list-style-type: none"> <li>1. The object is too close to the lens.</li> <li>2. Focus is on the top point of zoom press <b>ZOOM-</b>.</li> <li>3. Auto-focus is not on: press <b>AF</b> again.</li> <li>4. There is mist on the lens. It will disappear gradually when the equipment warms up.</li> </ol>

If the problem still remains after checking the above, consult your dealer or authorized service for help.

## 11.PACKING LIST AND ACCESSORIES

Items	Quantity
Power cord & adaptor	1
VGA Cable	1
HDMI Cable	1
CD(Software and user manual)	1

Please notice that HDMI cable is complimentary and NOT subject to warranty terms.